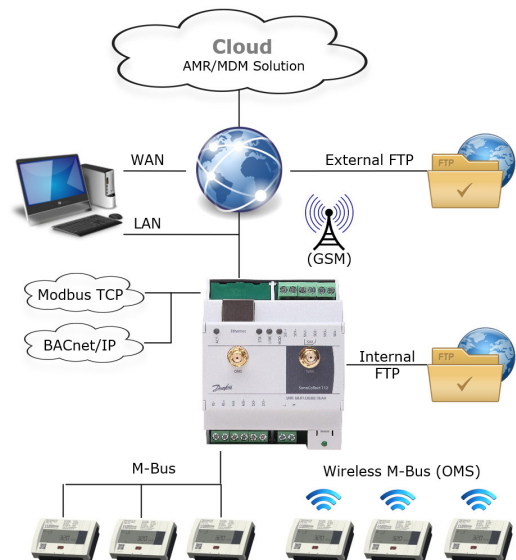**Fact Sheet**

SonoCollect 112™
Data Concentrator for Smart Metering

SonoCollect 112 is a product family of compact devices with an intuitive web interface for optimum usability. Equipped with modular interfaces, the SonoCollect 112 meets all the demands of Smart Metering. Real plug'n'play saves your time and effort.

Complete functionality

SonoCollect 112 is a powerful data concentrator. It reads out data autonomously from sensors and utility meters for all types of media. The incoming data is processed, stored and provided automatically. The SonoCollect 112 comes with an M-Bus, wM-Bus and an RS-485 interface.

M-Bus and wM-Bus are implemented according to EN 13757. The wired master can deal with up to 80 unit loads on the bus. The wM-Bus receiver supports the OMS specification (868 MHz). The RS-485 interface can be used directly for i.e. IEC 62056-21 (61107) protocol or other meters or measurement systems. Other serial protocols are also available.

All types of meters on the market which are compliant to EN 13757 can be read out without extensive configuration. The values, their units and meta data are interpreted automatically and are available at the SonoCollect 112.

Your automated metering system can be connected via the integrated Ethernet interface or via GSM/4G.

SonoCollect 112 have a width of only 4 DIN-rail units and fits in almost every DIN-rail cabinets. The power supply is already included.

Smart data management

SonoCollect 112 supports different XML data formats. So, it is compatible to many systems for automated meter reading (AMR) and energy data management (EDM). It is also possible to generate CSV data, the most general data format to exchange data between different systems.

SonoCollect 112 uses services like TCP, HTTPS, FTPS, SFTP or email communication for transferring the data to a remote system and can be secured by VPN if necessary. An access for requesting the log data can still be done via FTP(S). The devices come with 4 GB memory for local data storage.

The SonoCollect 112 has a so-called system meter, which offers monitoring or logging system states like in addition to the other meter values. For a better fault analysis, the time of the last readout is visualized.

Easy operation

The SonoCollect 112 has an integrated web server. This offers the possibility to configure the whole device by simply using a common web browser. There is no need for additional software.

The intuitive and clear navigation on the web site enables the user a fast set-up of the devices even without deep previous knowledge. Usually the standard configuration as supplied to the customer is sufficient to read out the meters and the sensors for gathering the data.

The web site also facilitates service and maintenance of the SonoCollect 112. There is status information available, like warnings for communication errors. Access rights can be set for different users. This allows customization or role based views and meets demands regarding privacy.

Ordering

Model	Number of meters	M-Bus	wM-Bus (OMS)	Ethernet	Modbus TCP	BACnet/IP	GSM/4G	Code no.
SonoCollect 112 E-WM-80	80	X	X	X	X			014U1603
SonoCollect 112 G-WM-80	80	X	X	X	X		X	014U1605
SonoCollect 112 EB-WM-80	80	X	X	X	X	X		014U1609
SonoCollect 112 GB-WM-80	80	X	X	X	X	X	X	014U1612

Technical specification, General

Supply voltage for internal power supply	85..264 VAC, 50Hz, screw terminals
Power consumption	<3 W (idle state), max. 10 W (LTE communication + 80 meters)
Dimensions of housing	4 TE, 72 x 90 x 61 (W x H x D) in mm without antenna
Installation, protection class	DIN rail 35 mm, IP 20
Temperature range, humidity	0..50 °C, 10..95% relative, no condensation
Integrated web srver	Configuration web site and local data presentation
Processor platform	ARM9-Core i.MX283, 426 MHz, 128 MB RAM
Memory for local data storage	4 GB
Real time clock	Yes, buffering of up to 7 days, accuracy 20 ppm
Status indication	LEDs signaling power, status, activity and WAN information;
Firmware update	Directly or via WAN (Internet) incl. integrity check and authentication
Configuration via WAN	Complete remote control via WAN (Internet), role based rights

Technical specification, Metering

M-Bus interface	Compliant to EN 13757, up to 80 unit loads, auto-scan
Wireless M-Bus interface	AES decryption, auto-scan, compliant to OMS (**868 MHz**), models S, T, C External antenna, different frequencies avaliable
Antenna connector for wM-BUS	SMA
Serial interface	RS-485, up to 250 kbps, two-wire, IEC 62056-21, SML
S0 pulse input	3 channels, IEC 62053-31
RElay output	1 digital output, 24 VDC
Number of meters	Ca. 5000 meters are supported logically

Technical specification, Communication

Ethernet interface	100 MBit, RJ45, support for IPv6, support for OpenVPN
LTE (4G) module (SonoCollect 112 G-WM-80)	Optional, external antenna, slot for Mini-SIM, 2G fallback
Antenna connection for LTE (SonoCollect 112 G-WM-80)	SMA
WAN connection to server system (push)	TCP / HTTP connection (XML), optionally extensible
Security for WAN (server communication)	TLS, SSH, OpenVPN
E-Mail transmission (push)	XML data, CSV data optional, security options available
FTP transfer (push, pull)	CSV data, security options available
Fallback routing (alternative connection on failure)	Declaration of further servers and communication paths